EXECUTIVE SUMMARY

Purpose

The Measures Testing Group for National Aggregate Measures of Water Security (MTG) is a group of water and wastewater utility operators and state primacy agencies charged by the U.S. Environmental Protection Agency, Water Security Division (EPA) with developing implementation options for national aggregate measures of water security. The MTG is not a consensus group; their charge was to completely identify and evaluate implementation options for consideration by a future deliberative body.

Audience

The MTG considered two primary audiences for its report: EPA, who convened and charged the Group, and future deliberative bodies that may be convened to consider measurement systems for the water sector.

Overview of Deliberations

The MTG evaluated the three national aggregate measures of water security recommended by the National Drinking Water Advisory Council Water Security Working Group (NDWAC/WSWG). These are as follows.

1. Implementation of "active and effective" security programs as measured by the degree of implementation of the 14 program features and corresponding feature-specific measures.
2. Reduction in security risk as measured by the total number of high security-risk assets and the number of high security-risk assets lowered to medium or low risk (based on the results of vulnerability assessments).
3. Reduction in the inherent risk potential of utility operations as measured by Clean Air Act Section 112(r) reporting on hazardous substances and the number of utilities that covert from gaseous chlorine to other forms of chlorine or other treatment methods.

The MTG report describes options and their corresponding strengths and weaknesses for the following topical areas:

- Data collection for each national aggregate measure;
- Reporting structures and timeframes; and

› Verification.

The report also describes elements that might be part of a reporting system including:

› Specific statements of progress that utilities might report;

› Information characterizing the types of utilities reporting ("attribute information"); and

› The reasons for progress or lack thereof ("diagnostic information").

Note that, because of the structure of the NDWAC Measures, the MTG's discussion focused around security specifically. However, the MTG recognized that: (1) although it is not emphasized in their titles, many of the 14 features are broader than simply security and are consistent with an all hazards approach[1] to prevention, detection, response and recovery or, overall, resiliency in the Sector; and (2) security-oriented efforts, particularly those aimed towards changing utility culture will have collateral benefits for worker safety and safety culture.

Key Findings

The MTG found that most utilities already have, or should be able to easily identify, utility-specific information relevant to each of the measures. They recognized that this might be more difficult in smaller systems and very small systems (systems serving populations of fewer than 3,300 and 300respectively), where the knowledge of progress likely exists, but, where operators may not have yet committed that knowledge to writing or compiled specific information.

In general, the MTG believed that measures 1 and 2 would result in a more informative and appropriate assessment of security progress than measure 3. The MTG identified substantial weaknesses and few if any strengths associated with measure 3 or new reporting for measure 3. They also discussed that education and information on the 14 features of measure 1 would be important to facilitate widespread and accurate reporting.

The MTG focused on a single option for reporting, a web-based system of individual data silos where utilities would report anonymously. (Some members were comfortable with the idea that utilities would provide contact information, but were not comfortable linking the contact information to the substance of individual reports.) The MTG struggled to identify an approach to independent verification in which the strengths or benefits would outweigh the weaknesses or

[1] As defined in the National Infrastructure Protection Plan, all hazards means an approach for prevention, protection, preparedness, response, and recovery that addresses a full range of threats and hazards, including domestic terrorist attacks, natural and manmade disasters, accidental disruptions, and other emergencies.

costs, although some members were open to a verification approach that would rely on peer matching to help utilities share information with one another.

A number of critical issues underpinned and informed the MTG's identification and assessment of implementation options. In particular, they were very concerned that, in order to promote voluntary reporting, any reporting system must be able to fully protect security-sensitive information provided by individual utilities. The MTG discussed this issue from two perspectives: (1) the importance of preventing disclosure of utility-specific information; and (2) the need to structure any system so reporting results would be aggregated, or banded, in a way that minimizes the possibility that the data source can be identified. In addition, the MTG observed these other overarching considerations:

- Reporting must be useful to utilities and deliver benefits either at an individual utility level or sector-wide to encourage voluntary participation.
- Variability presents a challenge but not a fatal flaw; indeed, some variability is appropriate and consistent with the "one size does not fit all" approach originally stressed by the WSWG.
- To maintain a sustainable measurement program, measurement data should satisfy key audiences and answer their questions.[2]

Finally, the MTG considered whether additional measures would be appropriate to complement the three measures recommended by the NDWAC/WSWG or whether changes to the NDWAC/WSWG measures are needed. The members believed that work would be needed to ensure that national aggregate measures fully describe not only security-specific achievements but also the progress utilities are making in improving preparedness, response capacity, and resiliency[3] for *all hazards*. The MTG discussed three approaches for this: (1) update the 14 features to more explicitly address an *all hazards* approach (thus ensuring that *all hazards* progress is measured by measure one (above); or (2) add an additional measure focused on *all hazards*, or, (3) replace one of the current measures, most likely measure three (above) with a measure focused on *all hazards*.

[2] The MTG's perspectives on key audiences and key questions are described in Appendix C.

[3] As defined by the National Infrastructure Protection Plan, resiliency means the capability of an asset, system, or network to maintain its function during or to recover from a terrorist attack or other incident.